

erwin DI Suite

Automation Framework

Quick Start User Guide – v9.3

About Automation Framework

Automation Framework - A developer's dream application and productivity accelerator saving organization's hundreds of thousands of dollars - how?

The customizable code-automation framework is a reusable code-generator which is built once, publish and deploy productivity tool to automate manual coding and tasks for ETL integration, Data Profiling, Testing Automation and more. Using The Automation Framework you can create Code Automation Templates to auto-generate ETL jobs for all of your jobs while customizing them to your "own" ETL design best practices and standards and more.

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Intended Use

This document is a Quick-Start User Guide intended to train users on how to get quickly acclimated to the Mapping Manager application and using it to create dynamic metadata driven source to target mapping specifications. It is important to note this documents is not intended to be a fully detailed and in depth users guide. Thereby, this Quick-Start guide will cover only the basics in terms of the usability of the application. Many of the features and capabilities will not be covered in the Quick-Start User Guide.


Erwin, Inc. recommends clients procure onsite training or services for hands on training and mentoring of resources on usability and best practices regarding the use of Mapping Manager.

Quick Access Section

Code-Automation Template (CAT)

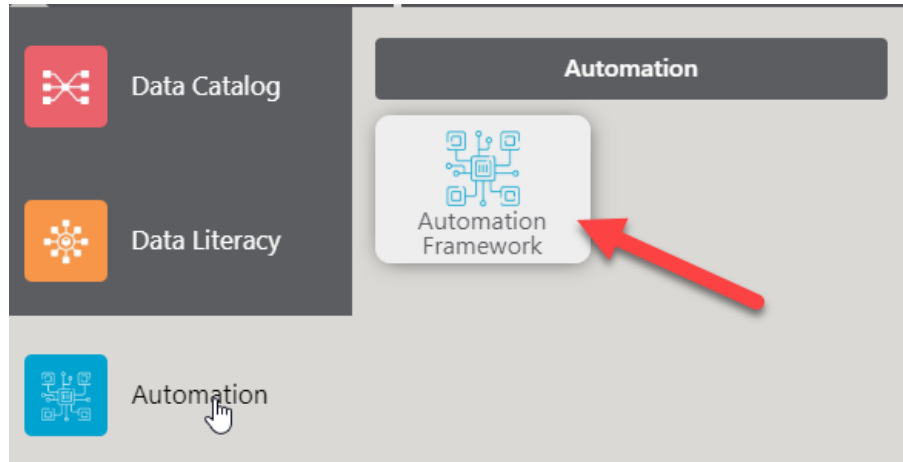
-  Access Code-Automation Module
-  Create Code-Automation Template
-  Generate Code-Automation Template
-  Download Code-Automation Template
-  Import Code-Automation Template
-  Clone Code-Automation Template
-  Export Mappings using Code-Automation

Mapping Manager – CAT Integration

-  Export Mappings using Code-Automation

Access Code-Automation Module

Click on the Module Launchpad icon  in the top left corner and click on “Automation Template Module” icon in the Launchpad menu to access the **Automation Framework**.



“**Code Gen Templates**” grid is displayed which contains the following headers:

- Template
- Description
- Scripting Language
- Template Order
- Output Content Type
- Output File Extension
- Created By
- Created Date Time
- Modified By
- Modified Date Time
- Visibility
- Options

Description of the headers displayed in the grid:

Template: Template Name

Description: Contains Template description

Scripting Language: Language in which the template is built (e.g. Javascript, JRuby and XSLT)

Template Order: Order in which template is displayed in grid

Output Content Type: Output file format (e.g. XML, DDL, CSV and Plain Text)

Output File Extension: Output file extension (e.g. xls, doc, txt etc.)

Created By: User who created the template






Created Date Time: Template created timestamp

Modified By: Template modified by whom

Modified Date Time: Template modified timestamp

Visibility: Template visibility status

Options: Additional options like


-  - Generate code-automation template
-  - Download code-automation template
-  - Edit template
-  - Code-Automation Options
-  - Delete template

See the Code-Automation Template grid below:

Mapping Manager v7.0 CAIFX													
Code Automation Templates													
#	Template	Description	Script Language	Display Order	Output Content Type	Output File Extension	Encrypt Template	Created By	Created Date Time	Modified By	Modified Date Time	Visibility	Options
	Informatica			2.0									
3	Standard Informatica	Standard Informatica	Java	1.0	XML	xml		AnalytiX Dat	04/13/2016 22:22	AnalytiX Data	04/13/2016 22:22		
	DataStage			3.0									
8	Parallel Job (v7.5)	Datastage 7.5 Parallel Job	Java	5.0	XML	xml		AnalytiX Dat	04/13/2016 22:22	AnalytiX Data	04/13/2016 22:22		
9	Server Job (v7.5)	Datastage 7.5 Server Job	Java	6.0	XML	xml		AnalytiX Dat	04/13/2016 22:22	AnalytiX Data	04/13/2016 22:22		
4	Parallel Job (v8.0 & above)	Datastage 8.0 Parallel Job	Java	1.0	XML	xml		AnalytiX Dat	04/13/2016 22:22	AnalytiX Data	04/13/2016 22:22		
5	Server Job (v8.0 & above)	Datastage 8.0 Server Job	Java	2.0	XML	xml		AnalytiX Dat	04/13/2016 22:22	AnalytiX Data	04/13/2016 22:22		
6	Parallel Job Include Sql Exp	Parallel Job Include Sql Express	Java	3.0	XML	xml		AnalytiX Dat	04/13/2016 22:22	AnalytiX Data	04/13/2016 22:22		
7	Server Job Include Sql Expr	Server Job Include Sql Express	Java	4.0	XML	xml		AnalytiX Dat	04/13/2016 22:22	AnalytiX Data	04/13/2016 22:22		
	SSIS			4.0									
13	Generate Microsoft SSIS DTS	Generate SSIS DTSX Packages	Javascript	5.0	XML	dtsx		AnalytiX Dat	04/13/2016 22:22	AnalytiX Data	04/13/2016 22:22		
12	Import Microsoft SSIS DTSX	Import SSIS DTSX Packages for	Javascript	4.0	Plain Text	log		AnalytiX Dat	04/13/2016 22:22	AnalytiX Data	04/13/2016 22:22		
10	Microsoft SSIS DTSX	SSIS Default XML	Java	1.0	XML	xml		AnalytiX Dat	04/13/2016 22:22	AnalytiX Data	04/13/2016 22:22		
11	Microsoft SSIS DTSX	SSIS Include SQL Expression	Java	3.0	XML	xml		AnalytiX Dat	04/13/2016 22:22	AnalytiX Data	04/13/2016 22:22		
	Talend			5.0									
15	Forward Engineering - Simpl	Forward Engineering - Simple P	Javascript	2.0	XML	xml		AnalytiX Dat	04/13/2016 22:22	AnalytiX Data	04/13/2016 22:22		
16	Reverse Engineering - Simpl	Reverse Engineering - Simple P	Javascript	3.0	Plain Text	txt		AnalytiX Dat	04/13/2016 22:22	AnalytiX Data	04/13/2016 22:22		
14	Talend Cat SSST SQL	Talend Cat SSST SQL	Javascript	1.0	Plain Text	txt		AnalytiX Dat	04/13/2016 22:22	AnalytiX Data	04/13/2016 22:22		

Note: CAT groups can be expanded by doing double click on a specific CAT group or use the expand all icon present on top right side of grid

Create Code-Automation Template

Click on  icon to **add** a new code-automation template.

Pop-up will appear asking for the below details to be entered:

Name: Code-Automation Template name

Description: Template description

Script Language: Template script language (JavaScript, JRuby, XSLT etc.)

Tab Display: Parent tab for this new additional code-automation template

Image: Upload a new image for this code-automation piece otherwise by default will pick up stock image

Enabled: Check to enable the state of the template

Encrypt Template: Enable the template encryption

Output Content Type: Output file format (e.g. XML, DDL, CSV and Plain Text)

Output File Extension: Output file extension (e.g. xls, doc, txt etc.)

Template Options:

Add the values pertaining to each field provided in the 'Add CAT Template' window.

Script Language, supported are:


- Javascript
- Groovy
- JRuby
- Jython
- XSLT

Tab Display, supported are:

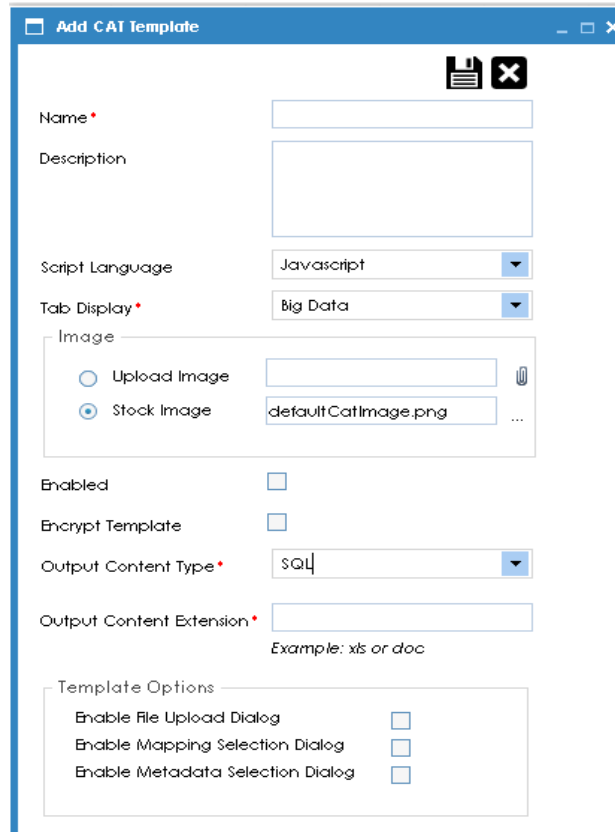
- Big Data
- DataStage
- Data Vault 2.0
- Talend
- Informatica
- MappingManager
- SSIS
- Standard ODI
- Data Profiling
- Testing Automation

Output Content Type, supported are:

- CSV
- Plain Text
- XML
- SQL

Click on  icon, to save the template

On saving, it will prompt (on top right corner) that the template has been successfully saved.



Successfully Saved		
By	Modified Date Time	Options


Next steps to create Code-Automation template:

Load a sample mapping to preview mapping specifications.

Write code using selected language (XSLT, JavaScript etc.)

RUN the code in order to successfully create the template.


AutoSave ON: Save all your changes automatically while coding yourself

Click on  icon to load the mappings that already exist within the Mapping Manager repository, to test the template created.

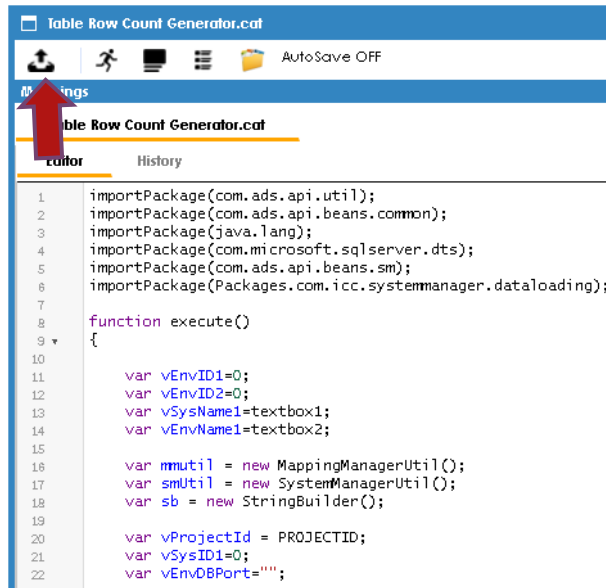
Note: All the current versions of the maps available under Project Workspace, will be visible here to Load Map.

Example provided in the screenshot is in Javascript language.

Select the map from the Project/Mapping browser and click on

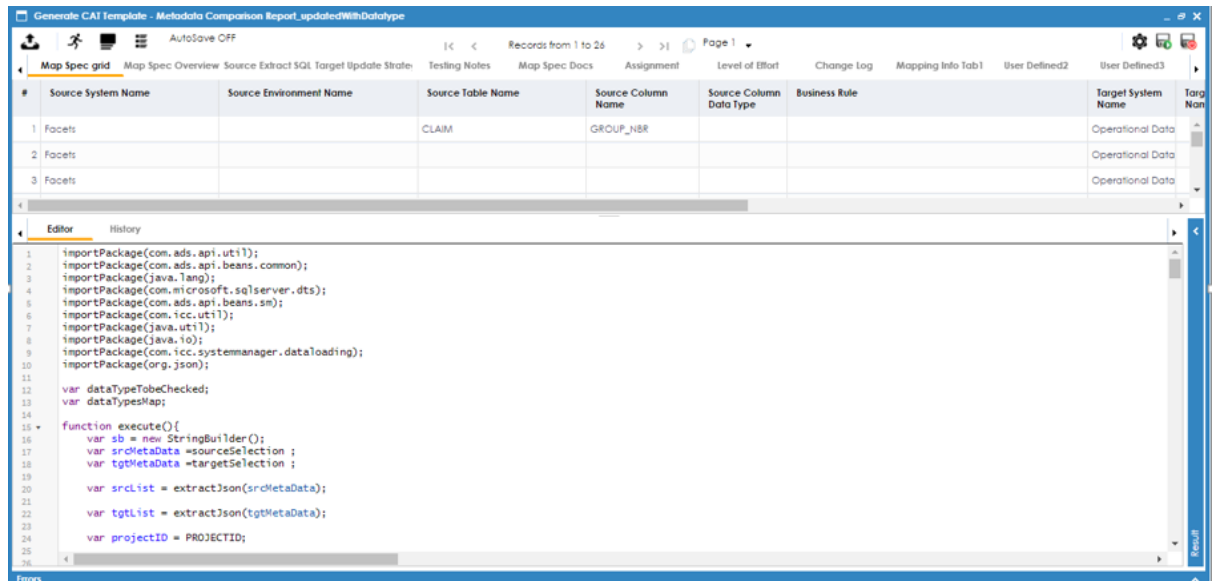
 icon to load the maps

Map Specs Grid is visible for the map just loaded, with the available source to target mappings, along with other Additional Mapping Information tabs available under Mapping Manager module such as Map Specs Overview, Source Extract SQL etc.



```

1  importPackage(com.ads.api.util);
2  importPackage(com.ads.api.beans.common);
3  importPackage(java.lang);
4  importPackage(com.microsoft.sqlserver.dts);
5  importPackage(com.ads.api.beans.sm);
6  importPackage(Packages.com.icc.systemmanager.dataloading);
7
8  function execute()
9  {
10
11      var vEnvID1=0;
12      var vEnvID2=0;
13      var vSysName1=textBox1;
14      var vEnvName1=textBox2;
15
16      var mmutil = new MappingManagerUtil();
17      var smUtil = new SystemManagerUtil();
18      var sb = new StringBuilder();
19
20      var vProjectId = PROJECTID;
21      var vSysID1=0;
22      var vEnvDBPort="";
  
```




#	Source System Name	Source Environment Name	Source Table Name	Source Column Name	Source Column Data Type	Business Rule	Target System Name	Target Column Name
1	Facets		CLAIM	GROUP_NBR			Operational Data	
2	Facets						Operational Data	
3	Facets						Operational Data	

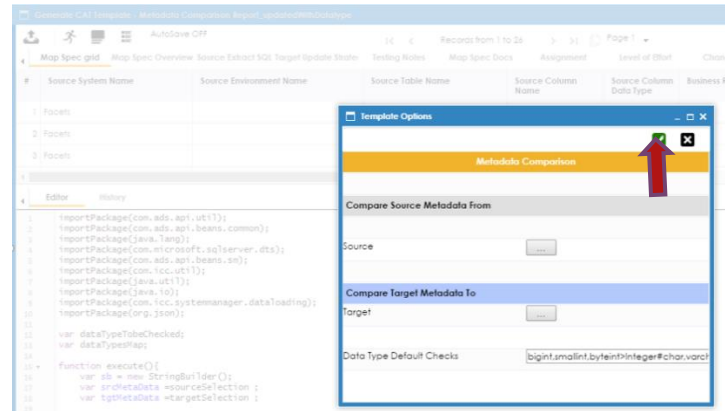
```


1  importPackage(com.ads.api.util);
2  importPackage(com.ads.api.beans.common);
3  importPackage(java.lang);
4  importPackage(com.microsoft.sqlserver.dts);
5  importPackage(com.ads.api.beans.sm);
6  importPackage(com.icc.util);
7  importPackage(java.io);
8  importPackage(Packages.com.icc.systemmanager.dataloading);
9  importPackage(org.json);
10
11  var dataTypeToBeChecked;
12  var dataTypesMap;
13
14  function execute(){
15      var sb = new StringBuilder();
16      var srcMetadata = sourceSelection;
17      var tgtMetadata = targetSelection;
18
19      var srcList = extractJson(srcMetadata);
20      var tgtList = extractJson(tgtMetadata);
21
22      var projectID = PROJECTID;
  
```

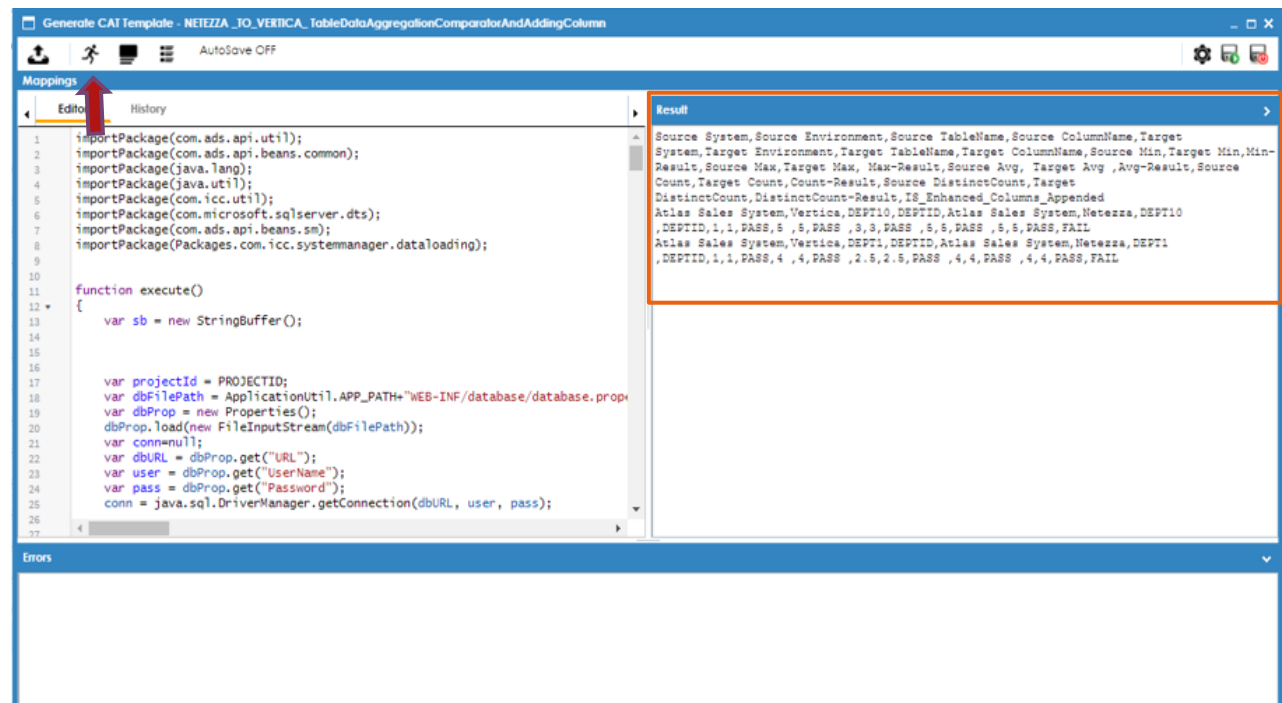
Once the map is loaded,

It will show template options. Select the required Source and

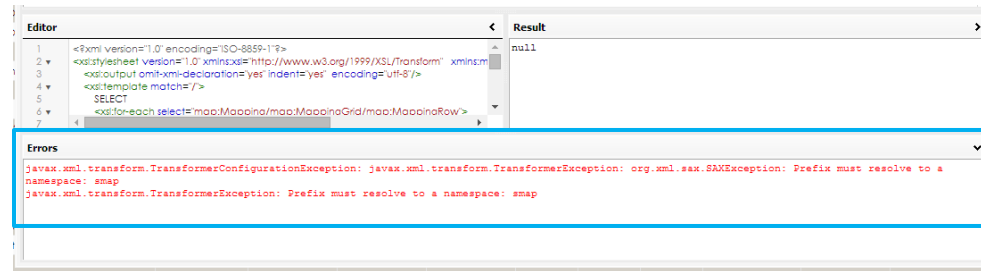
Target and click submit  icon.



Click Run  to execute the script and see the relevant output in **Result** window.



If there are errors/exceptions while executing the scripting code, it will be displayed in **Errors** section at the bottom.



Save the template



Save and Continue











Save and Exit

On Save and Continue, template will be saved and remain on the same Generate Code template screen

On Save and Exit, template will be saved and redirected to Code-Automation Template Grid

Download Code-Automation Template

Click on  icon available in the Code-Automation Template Grid, to download the Code-Automation Template.


AnalytiX Dat	04/13/2016 22:22	AnalytiX Data	04/13/2016 22:22				
Administrato	03/02/2016 05:22	Administrator	04/27/2016 17:25				

Import Code-Automation Template

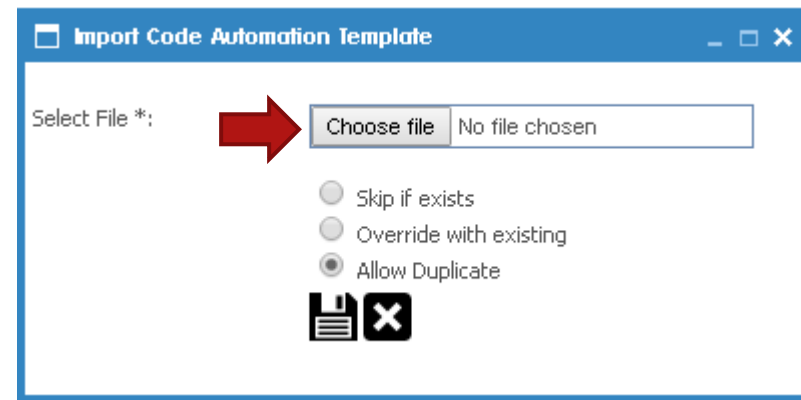
Click on the  icon to **import** code-automation template.

Pop-up will appear asking to upload XML code-automation template.

Browse through the directories to pick the relevant XML code-automation template file.

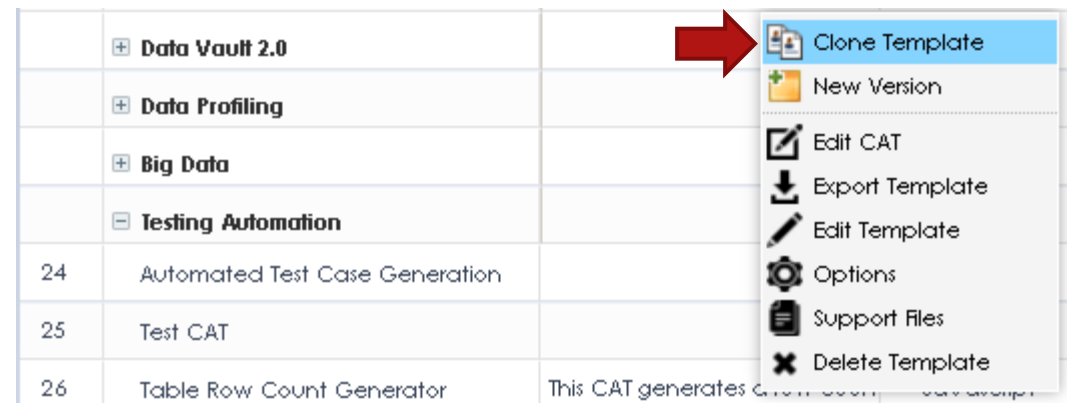
Click on Save  icon to upload the template.

Click on Undo/Cancel  icon to cancel the upload.

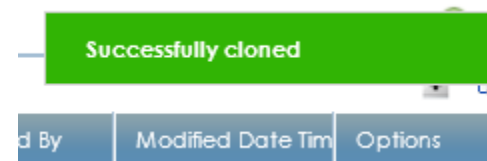


Clone Code-Automation Template

Right-Click on the Code-Automation Template Grid, to **clone** code-automation template.




On successful template cloning, a message will appear as shown "Successfully cloned"

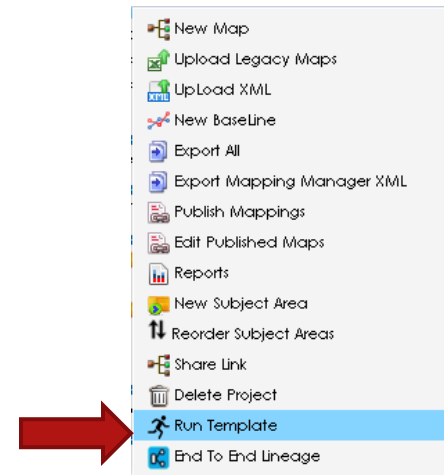


Export S2T Mappings into ETL compliant format using Code-Automation

In **Mapping Manager** module, under Workspace/Project Mappings panel.

Right-click on a particular Project, Single Map, Multiple Mappings, Transformations node etc and click on **Run Template**

( **Run Template**), to export custom source-to-target mappings using Code-Automation capability.



A window appears to export the selected Source-to-Target Mappings to various ETL compliant tools along with capability to export in custom code-automation templates.

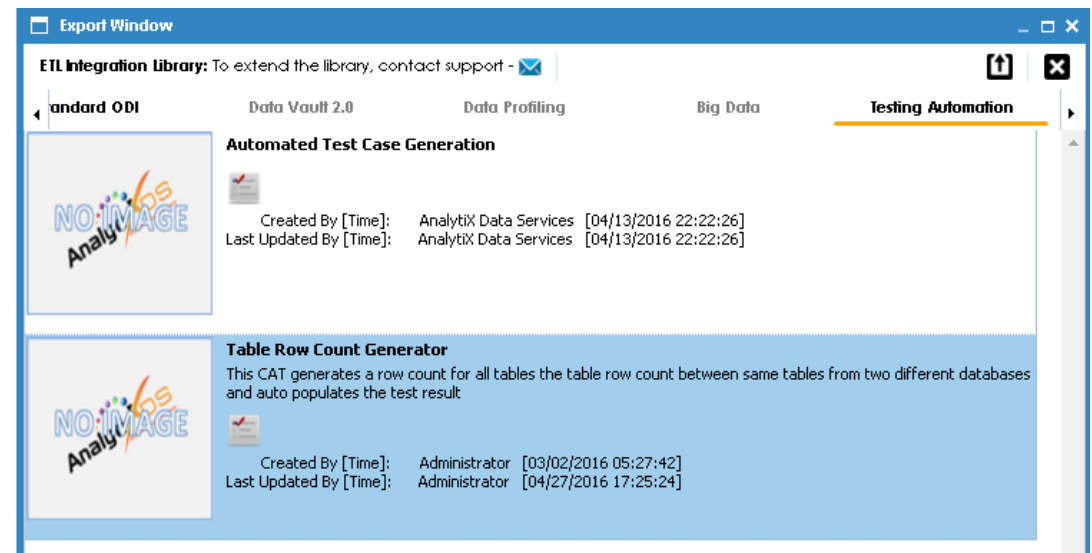
The new Code-Automation template (created earlier) is visible under the tab it was created, as shown in the earlier sections.

Select the newly added Custom template as the output format, like in this case 'Table Row Count Generator' template is selected and click on the

export  icon.

From auditing perspective, it can be seen when the template was created and modified and by whom.

Note: Multiple mappings can be selected at one go.



On Export, custom generated Output (CSV/SQL/doc/XML etc) is produced for selected mappings. Click "Download File" hyperlink to download the output file.



In this case, CSV Output is generated in the form of a text file (output of Code Gen Template)

